Pergamon

J. therm. Biol. Vol. 22, No. 1, p. vii, 1997
© 1997 Elsevier Science Ltd
All rights reserved. Printed in Great Britain
0306-4565/97 $17.00 + 0.00

AUTHOR INDEX

Al-Saffar Z. Y., 389
Aldrich J., 389
Avery R., 191

Beaver J. M., 345
Bedford G., 67
Berns C. M., 365
Blackburn R. V., 365
Blix A. S., 123
Bly J. E., 381
Bourdon L., 109
Bowler K., 403
Brown C. M., 227
Brown I. M., 115
Brown J. R., 221
Buskirk S. W., 91

Caputa M., 21
Causey A. L., 381
Christian K., 67
Churchill T. A., 57
Clem L. W., 381
Cornelius G., 85
Corry P. M., 365
Cuchens M. A., 381
Curé M., 109

Demicka A., 21
Dokładny K., 21
Drymalski M. W., 221
Dubey A. K., 323

El-Wadawi R., 403
Epstein Y., 171

Farfán C., 319
Folkow L. P., 123

Galoforo S. S., 365
Gaugler R., 115
Geiser F., 373
Gonzalez R. R., 213
Gordon C. J., 29, 353
Grainger J. N. R., 389
Gwoździński K., 129

Haddad W., 289
Hahn L., 101
Haim A., 37
Herrera F. D., 139, 319
Higuchi T., 75
Hirokawa K., 75
Holloway J. C., 373
Horowitz M., 171, 289

Inoshiri R., 339
Ivanov I. T., 205

Jackson R. R., 245
Janzen F. J., 183
Javeri T., 323
Jessen C., 197
Johnson D. L., 231
Joshi D. S., 151
Jóźwiak Z., 129

Kageyama K., 75
Kivivuori L. A., 305
Kogawa H., 75
Korhonen I. A., 49
Kuhnen G., 197
Kuroshima A., 313
Kurowicka B., 21
Kvadsheim P. H., 123

Lactin D. J., 231
Lagerspetz K. Y. H., 49, 77
Lahdes E. O., 305
Laor A., 171
Łaski J., 129
Lee Y. J., 365
Li D., 245

Mao J. P., 239
Masuda M., 339
McArthur A. J., 43
McKeehan A., 397
Meiri U., 171, 289
Moran D., 171
Morrow-Tesch J., 101

Nagashima T., 313
Ng C. E., 239

Ohkura K., 339
Ohmasa Y., 339
Olson B. E., 345
Onoyama Y., 75
Ousey J. C., 43

Packard G. C., 183
Pakhotin P. I., 297
Palkó Á., 163
Pandolf K. B., 213
Parihar M. S., 323
Pashovkin T. N., 297
Paulissen M. A., 15
Pelouch V., 1
Pingyue S., 155
Pinshow B., 331
Pivovarova N. B., 77
Pobezhimova T., 283
Pouzeratte N., 109
Prakash P., 323
Prange H. D., 331

Raaphorst G. P., 239
Ramirez F. B., 319
Ramirez L. F. B., 139
Refinetti R., 227
Rodríguez M. H., 139
Rogowitz G. L., 11
Roxburgh L., 331

Sahara T., 75
Satoh M., 75
Sevilla B. B., 319
Shapiro Y., 171
Shitzer A., 213
Shochina M., 289
Sievert L. M., 15, 397
Stieglitz P., 109
Storey K. B., 57
Stroschein L. A., 213
Suho S., 339
Swanson D. L., 221
Székely M., 163
Szelényi Z., 163

Taylor S. L., 91
Teramoto Y., 339
Tokura H., 339
Tosini G., 191
Tsumura M., 75

Varakina N., 283
Voinikov V., 283
Vornanen M., 1
Voronkov V. N., 297

Walsberg G. E., 275
Weiguo D., 155
Wolf B. O., 275
Woollen N., 101
Wooten R. M., 381
Wraith J. M., 345

Xiang J., 155

Yang D. P., 239
Yang Y., 353
Yemets O. N., 297
Yoshida T., 313

Zari T. A., 145

Pergamon

J. therm. Biol. Vol. 22, No. 1, pp. ix–xii, 1997
© 1997 Elsevier Science Ltd
All rights reserved. Printed in Great Britain
0306-4565/97 $17.00 + 0.00

SUBJECT INDEX

Acanthodactylus boskianus, 145
Acclimation,
  and CTMax of *Macrobrachium*, 139
  and metabolism in two species of *Anolis*, 11
  effect on heat tolerance of *Asellus*, 49
  effect on lower temperature tolerance of nematodes, 115
  effects on properties of carp heart, 1
  heat, effects on cardiovascular performance in rats, 171
Aedes krombeini, 151
Anaerobic capacity,
  role in survival of freezing in intertidal gastropods, 57
Anodonta cygnea, 77
Anolis cristatellus, 11
Anolis sagrei, 11
Arachnid, 245
Asellus aquaticus, 49
ATPases,
  of *Anodonta* gills, effect of cadmium on activity of at different temperatures, 77

Balaenoptera acutorostrata, 123
Behavioural thermoregulation,
  in *Podarcis*, 397
  precision of, in bisexual and parthenogenetic lizards, 15
Bird, 221
Blubber,
  thermal conductivity of minke whale, 123
Body temperature,
  ambient temperature limits on, in telemetered male and female rats, 353
  amplitude of, in goats in an outdoor environment, 197
  and cold exposure in *Vireo* and *Dumetella*, 221
  and food assimilation in grass lizards, 155
  and photoperiod in a bushy-tailed gerbil, 37
  and season in *Varanus*, 67
  and sprint speed in grass lizards, 155
  and thermal stress in rats, 163
  behavioural optimisation of, in grasshopper nymphs, 231
  continual measurements of, in goats, 197
  control of, in bisexual and parthenogenetic lizards, 15
  daily rhythms of, in golden hamsters, 227
  determination of, in *Sceloporus*, 275
  effect of shielding parietal eye on, in *Podarcis*, 397
  preferred in *Bulla*, 319
  regulation in a desert grasshopper by evaporative cooling, 331
  seasonal variation in, in goats, 197
Bos indicus, 101
Bos taurus, 101, 345
Brain slices,
  effect of hypothermia on activity of, from hibernating and non-hibernating ground squirrels, 297
Brain temperature,
  continual measurements of, in goats, 197
  cooling of, in goats, 197
  cooling of, in rats, anatomical and physiological evidence for, 21
Brown adipose tissue,
  thermogenesis of and blood flow in, NO a possible common mediator of, 313
Bulla gouldiana, 319

Cadmium,
  effect on ATPase activity of, from *Anodonta* gills and temperature, 77
Calliphora vicina, 403
Calliptamus barbarus, 331
Capra hircus, 197
Carassius carassius, 1
Cardiovascular performance,
  effects of training and heat acclimation on, in rats, 171
Chrysemys picta, 183
Citellus undulatus, 297
Cnemidophorus gularis, 15
Cnemidophorus laredoensis, 15
Cold defence,
  automatic, reversible depression of by hyperthermia in rats, 163
Cold exposure,
  comparison of sliding versus static, on summit metabolism in birds, 221
Cold tolerance,
  interpopulational variation in, in hatchling painted turtles, 183
  of steinernematid and heterorhabditid nematodes, 115
Creatine kinase,
  release from rat skeletal muscle during *in vitro* hyperthermia, 109

Critical thermal maximum,
and acclimation in *Asellus*, 49
and acclimation in *Macrobrachium*, 139
in *Takydromus*, 155
Critical thermal minimum,
in *Takydromus*, 155
Crustacea, 49, 139, 305

Daphnia magna, 305
Development,
effect of constant and fluctuating temperatures on in *Aedes*, 151
influence of alternating temperatures and humidity on, in *Drosophila*, 389
maximal rate of, in nymphal grasshoppers at selected body temperatures, 231
of spiders and habitat temperature, 245
optimal at preferred temperature range, 319
Drosophila melanogaster, 389
Dumetella carolinensis, 221
Enzyme, 77, 109, 239, 283, 323
Equus caballus, 43
Erythrocytes,
effect of thermal stress on water content of rabbit, 75
role of plasma membrane of, in the development of thermotolerance, 129
thermohaemolysis of human, and membrane alteration, 205
Evaporative cooling,
a thermal strategy in a desert grasshopper, 331
Exercise,
impacts of heat acclimation and training on cardiovascular performance in rats, 171

Fecundity,
effect of constant and fluctuating temperatures on, in *Aedes*, 151
effect of temperature on, in spiders, 245
Fish, 1, 123
Feeding rates,
maximal, in grasshopper nymphs at selected temperatures, 231
Food assimilation,
dependency on body temperature in *Takydromus*, 155
Freezing,
in hatchling painted turtles, 183
metabolic responses to, in *Littorina*, 57
tolerance of steinernematid and heterorhabditid nematodes, 115

Heart,
carp, effect of acclimation on properties on, 1
rate in rats, effect of ambient temperature on, 353
rate in rats, effect of training and heat acclimation on, 171
Heat death points,
comparison of methods of estimation of, 305
effect of thermotolerance on, in blowflies, 403
Heat exchange,
lumped-parameter model for cold-induced vasodilation in the finger-tip, 213
Heat inactivation,
complex I of blowfly flight muscle mitochondria, 403
of complex I of the respiratory chain of maize mitochondria, 283
of DNA polymerases in human glioma cells, 239
Heat loss,
and insulation value of the coat of a foal, 43
by evaporative cooling in a desert grasshopper, 331
Heat production,
by BAT with NO as a possible mediator of, 313
daily rhythms of, in a bushy-tailed gerbil, 37
daily rhythms of, in golden hamsters, 227
Heat shock,
and thermal tolerance in *Asellus*, 49
and thermal tolerance in blowflies, 403
response, a study of factor signals in, 85
Heat Shock Proteins,
induced by heat shock in *Asellus*, 49
induction in *Drosophila* cells and $[Ca]_i$ elevation, 85
induction in *Drosophila* cells and phosphoinositide turnover, 85
transfection of human HSP 27 into CHO cells, regulation of expression of, 365
Heteropneustes fossilis, 323
Heterothabditis bacteriophora, 115
Homeothermy,
and ability to respond to injury and trauma, 29
Human, 213, 239, 339, 381
Hyperthermia,
and inactivation of DNA polymerases of human glioma cells, 239
and radiosensitization of human glioma cells, 239
causes a reversible depression of cold defence mechanisms in rat, 163
effect on creatine kinase release from rat skeletal muscle *in vitro*, 109
Hypohydration,
effect on adrenergic responsiveness of vasculature in young and old rats, 289
Hypothermia,
a factor in the ability of mammals to respond to trauma and injury, 29
influence on neural activity of brain slices from hibernating and non-hibernating ground squirrels, 297
in *Vireo gilvus* and *Dumetella carolinensis* by sliding and static cold exposure, 221

Insect, 85, 151, 231, 331, 389, 403

Lepus cuniculus, 75
Lethal temperatures,
  comparison of methods for determination of, 305
  lower for steinernematid and heterorhabditid nematodes, 115
Light,
  spectral composition and thermoregulatory set-points in *Podarcis*, 191
Littorina littorea, 57
Locomotor activity,
  daily rhythms in, in golden hamsters, 227
  in male and female rats, effect of ambient temperature on, 353
Longevity,
  effect of constant and fluctuating temperatures on, in *Aedes*, 151

Macrobrahium tenellum, 139
Mammal, 21, 29, 37, 43, 75, 91, 101, 109, 123, 129, 163, 171, 197, 205, 213, 227, 289, 297, 313, 339, 345, 353
Marsupial, 373
Martes americana, 91
Melanoplus sanguinipes, 231
Melatonin,
  in human urine, and light intensity, 339
  possible role in behavioural thermoregulation in *Podarcis*, 191
Membrane,
  alterations in, and the mechanism of thermohaemolysis of erythrocytes, 205
  plasma of erythrocytes, role in thermotolerance, 129
  proteins and thermo- and chemotolerance, 129
Mesocricetus auratus, 227
Metabolism,
  and thermal acclimation in two species of *Anolis*, 11
  and torpor in *Sminthopsis*, 373
  cold-induced summit metabolism in birds, 221
  responses to freezing and anoxia in *Littorina*, 57
  seasonal compensation of, in the fringe-toed lizard, 145
Micrometeorological measurements,
  in determination of standard operative temperature, 345
Mitochondria,
  complex I site of damage in *in vivo* heated blowflies, 403
  maize, heat inactivation of complex I of the respiratory chain, 283
Model,
  lumped-parameter for heat exchange in the human finger-tip, 213
Moisture,
  effect on insulation value of the coat of a foal, 43
Mollusc, 57, 77, 319
Muscle skeletal,
  effect of hyperthermia *in vitro* on release of creatine kinase from, 109

Nematodes, 115
Non-shivering thermogenesis,
  effect of photoperiod on, in bushy-tailed gerbils, 37

Odocoileus hemionus, 345
Operative temperature,
  determination of, from microclimatic data, 67
  standard for mule deer and cattle in winter, 345
  test of accuracy of using lizards, hollow casts and cylinders, 275

Phosphoinositide turnover,
  and stress response in *Drosophila* cells, 85
Photoperiod,
  and daily rhythms of food, energy, water intake and heat production in a gerbil, 37
  and temperature selection in bisexual and parthenogenetic lizards, 15
  effect on preferred temperature in *Bulla*, 319
  effect on reproduction and lack of effect on torpor in *Sminthopsis*, 373
Plant, 283
Podarcis muralis, 191, 397
Preferred temperature,
  and season in adult grass lizards, 155
  dependent on season in *Varanus scalaris*, 67
  in bisexual and parthenogenetic lizards, 15
  in *Bulla*, 319
  in *Podarcis*, effect of shielding the partietal eye, 397

Rat, 21, 109, 163, 171, 289, 313, 353
Rattus norvegicus, 163
Reproduction,
  at preferred body temperature range in *Bulla*, 319
  effect of habitat temperature on, in spiders, 245
  effect of photoperiod on, in *Sminthopsis*, 373
Reptile, 1, 11, 15, 67, 155, 183, 191, 275, 397

Sceloporus magister, 275
Season,
  effect on body temperature in *Varanus scalaris*, 67
  effect on metabolism in the fringe-toed lizard, 145
Sekeetamys calurus, 37
Size,
  and homeothermic stability in response to trauma and injury, 29
  lack of effect on body temperature in a lizard, 275
Sminthopsis crassicaudata, 373

Sprint speed,
dependence on body temperature in *Takydromus*, 155
Steinernema anomali, 115
Steinernema feltiae, 115
Subnivean refuges,
of American martens, wind speed and thermal regimes of, 91
Superoxide dismutase activity,
of fish liver after exposure of fish to raised temperatures, 323

T-lymphocytes,
human, anergy or cell death induced by low physiological temperature, 381
response of to heat stress in cattle, 101
Takydromus septentrionalis, 155
Temperature,
ambient, and the stability of thermal regulation in rats, 353
and development in spiders, a review, 245
effect on cadmium activation of *Anodonta* gill ATPase activity, 77
effect on development in *Drosophila*, 389
effect on lipid peroxidation, ascorbic acid and phospholipid content of fish liver, 323
of subnivean refuges of martens and wind speed, 91
Thermal conductivity,
of minke whale blubber, 123
Thermal insulation,
effect of moisture on coat of foal, 43
of minke whale blubber, 123
Thermal sensation,
dependancy on light intensity, 339
Thermography, 191
Thermoregulation,
behavioural and set-points in *Podarcis*, 191, 397
behavioural, in bisexual and parthenogenetic lizards, 15
behavioural in nymphal grasshoppers, 231
effect of shielding parietal eye on behavioural in *Podarcis*, 397
in telemetered male and female rats, 353
Thermotolerance,
in *Varanus scalaris*, 67
protects blowfly mitochondria from *in vivo* heat damage, 403
role of plasma membranes in the development of in erythrocytes, 129
Thermal stress,
and adrenergic responsiveness of vasculature in young and old rats, 289
effect on response of γδ T-lymphoctyes of *Bos taurus* and *B. inducus*, 101
effect on water content of rabbit erythrocytes *in vivo* and *in vitro*, 75
Torpor,
in *Sminthopsis*, 373

Varanus scalaris, 67
Vireo gilvus, 221

Water loss,
and evaporative cooling in a desert grasshopper, 331
Wind speed,
effect on temperature of marten subnivean resting sites, 91

Zea mays, 283

TYPESET IN GREAT BRITAIN BY BPC TECHSET LTD, EXETER. PRINTED BY BPC WHEATONS LTD, EXETER